1
TOTAL NUMBER OF PAGES

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 10-Q
(Mark One)
[X] Quarterly report pursuant to Section 13 or $15(d)$ of the Securities Exchange Act of 1934 For the quarterly period ended April 3, 1998

OR
[ ] Transition report pursuant to Section 13 or $15(\mathrm{~d})$ of the Securities Exchange Act of 1934 For the transition period from $\qquad$ to $\qquad$
Commission File No. 0-25826

HARMONIC LIGHTWAVES, INC.
(Exact name of Registrant as specified in its charter)
DELAWARE 77-0201147
(State of incorporation) (I.R.S. Employer Identification No.)

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549 Baltic Way
Sunnyvale, CA 94089
(408) 542-2500
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)
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Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15 (d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
Yes [X] No [ ]

As of April 3, 1998 there were $11,526,695$ shares of the Registrant's Common Stock outstanding.

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HARMONIC LIGHTWAVES, INC.
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PART I - FINANCIAL INFORMATION

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PART I - FINANCIAL INFORMATION
ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

HARMONIC LIGHTWAVES, INC. CONDENSED CONSOLIDATED BALANCE SHEETS (IN THOUSANDS, EXCEPT SHARE DATA)

|  | $\begin{gathered} \text { APRIL 3, } \\ 1998 \end{gathered}$ | $\begin{gathered} \text { DECEMBER } 31, \\ 1997 \end{gathered}$ |
| :---: | :---: | :---: |
|  | (UNAUDITED) |  |
| ASSETS |  |  |
| Current assets: |  |  |
| Cash and cash equivalents | \$ 12,483 | \$ 13,670 |
| Accounts receivable, net | 14,397 | 16,458 |
| Inventories | 16,269 | 15,474 |
| Prepaid expenses and other assets | 1,885 | 1,774 |
| Total current assets | 45,034 | 47,376 |
| Note receivable | -- | 1,300 |
| Property and equipment, net | 10,070 | 10,077 |
| Intangibles and other assets | 1,571 | 134 |
|  | \$ 56,675 | \$ 58, 887 |
| LIABILITIES AND STOCKHOLDERS' EQUITY |  |  |
| Current liabilities: |  |  |
| Accounts payable | \$ 4,981 | \$ 3,708 |
| Accrued liabilities | 5,212 | 4,896 |
| Borrowings under short-term credit facilities | 615 | -- |
| Total current liabilities | 10,808 | 8,604 |
| Other liabilities | 420 | 352 |
| Stockholders' equity (deficit): |  |  |


| authorized; no shares issued or outstanding | -- | -- |
| :---: | :---: | :---: |
| Common Stock, $\$ .001$ par value, $50,000,000$ shares authorized; $11,526,695$ and $10,414,297$ shares issued and outstanding | 12 | 10 |
| Capital in excess of par value | 69,816 | 55,917 |
| Accumulated deficit | $(24,384)$ | $(6,019)$ |
| Currency translation | 3 | 23 |
| Total stockholders' equity | 45,447 | 49,931 |
|  | \$ 56,675 | \$ 58,887 |

The accompanying notes are an integral part of these condensed consolidated financial statements.

|  | THREE MONTHS ENDED |  |  |
| :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { APRIL 3, } \\ 1998 \end{gathered}$ | $\begin{gathered} \text { MARCH 28, } \\ 1997 \end{gathered}$ |
| Net sales | \$ | 16,204 | \$19,033 |
| Cost of sales |  | 11,114 | 10,042 |
| Gross profit |  | 5,090 | 8,991 |
| Operating expenses: |  |  |  |
| Research and development |  | 3,423 | 2,791 |
| Sales and marketing |  | 4,072 | 2,863 |
| General and administrative |  | 2,148 | 1,110 |
| Acquired in-process technology charge |  | 14,000 | -- |
| Total operating expenses |  | 23,643 | 6,764 |
| Income (loss) from operations |  | $(18,553)$ | 2,227 |
| Interest and other income, net |  | 188 | 241 |
| Income (loss) before income taxes |  | $(18,365)$ | 2,468 |
| Provision for income taxes |  | -- | 370 |
| Net income (loss) |  | $(18,365)$ | \$ 2,098 |
| Net income (loss) per share |  |  |  |
| Basic | \$ | (1.60) | \$ 0.21 |
| Diluted | \$ | (1.60) | \$ 0.18 |


| Weighted average shares | 11,475 10,210 <br> Basic $=======$ <br> Diluted 11,475 | 11,568 |
| ---: | ---: | ---: |
|  | $========$ | $=======$ |

The accompanying notes are an integral part of these condensed consolidated financial statements.

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Net income (loss)
cash used in operating activities:

| cash used in operating activities: | 1,080 |
| :--- | :--- |
| Depreciation and amortization | 763 |

$\begin{array}{lrr}\text { Depreciation and amortization } & 1,080 & 763 \\ \text { Acquired in-process technology charge } & 14,000 & --\end{array}$
Changes in assets and liabilities, net of effects
of acquisition:
Accounts receivable
Inventories
Prepaid expenses and other assets

| 2,209 | $(1,675)$ |
| :---: | ---: |
| $(262)$ | $(2,169)$ |
| 454 | 113 |
| 634 | 255 |
| $(186)$ | $(261)$ |

Net cash used in operating activities
(436) (876)

Cash flows used in investing activities Acquisition of property and equipment
Acquisition of New Media Communication; net of cash received

Net cash used in investing activities


Accounts payable
Accrued and other liabilities
$(1,033) \quad(1,466)$
------------1

Cash flows from financing activities:
Proceeds from issuance of Common Stock, net
Repayments under short-term credit facilities
Net cash provided by financing activities

| 478 | 480 |
| :---: | ---: |
| $(185)$ | -- |
| ---------- |  |
| 293 | 480 |

Effect of exchange rate changes on cash
and cash equivalents
(11)

1,862
Net decrease in cash and cash equivalents
$(1,187) \quad(1,862)$

Cash and cash equivalents at beginning of period

| 13,670 | 16,410 |
| :---: | :---: |
| \$ 12,483 | \$ 14,548 |

Supplemental schedule of cash flow information:
Income taxes paid during the period $\quad$ \$ 68 \$

The accompanying notes are an integral part of these condensed consolidated financial statements.

NOTE 1 - BASIS OF PRESENTATION
The accompanying unaudited condensed consolidated financial statements include all adjustments (consisting only of normal recurring adjustments) which Harmonic Lightwaves, Inc. (the "Company") considers necessary for a fair presentation of the results of operations for the unaudited interim periods covered and the consolidated financial condition of the company at the date of the balance sheets. The quarterly financial information is unaudited. This Quarterly Report on Form 10-Q should be read in conjunction with the Company's audited consolidated financial statements contained in the Company's Annual Report on Form 10-K which was filed with the Securities and Exchange Commission on March 31, 1998. The interim results presented herein are not necessarily indicative of the results of operations that may be expected for the full fiscal year ending December 31, 1998, or any other future period.

NOTE 2 - ACQUISITION OF N.M. NEW MEDIA COMMUNICATION LTD.

In January 1998, the Company acquired N.M. New Media Communication Ltd. ("NMC"), a privately held supplier of broadband, high-speed data delivery software and hardware, in exchange for the issuance of $1,037,911$ shares of Harmonic common stock and the assumption of all outstanding NMC stock options. The acquisition was accounted for using the purchase method of accounting. Accordingly, the results of operations of NMC have been included in the consolidated financial statements of the Company from the date of the acquisition. The purchase price of $\$ 17.6$ million was allocated to the acquired assets, in-process technology and goodwill. A one-time charge of $\$ 14.0$ million was recorded in the first quarter of 1998 for in-process technology acquired. Goodwill of $\$ 1.5$ million is being amortized over the estimated useful life of five years.

The following table sets forth the pro-forma net sales, net income and net income per share of the Company for the quarter ended March 28, 1997, giving effect to the acquisition of NMC as if it had occurred on January 1, 1997:

|  | THREE MONTHS ENDED |
| :---: | :---: |
|  | MARCH 28, 1997 |
| IN THOUSANDS, EXCEPT PER SHARE DATA | (UNAUDITED) |
| Net sales | \$ 19,232 |
| Net income | \$ 1,754 |
| Net income per share |  |
| Basic | \$ 0.16 |
| Diluted | \$ 0.14 |
| Weighted average shares |  |
| Basic | 11,248 |
| Diluted | 12,606 |

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NOTE 3 - INVENTORIES

|  | $\begin{gathered} \text { APRIL 3, } \\ 1998 \end{gathered}$ |  | $\begin{gathered} \text { DECEMBER 31, } \\ 1997 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| IN THOUSANDS |  | ITED) |  | ITED) |
| Raw materials | \$ | 4,556 | \$ | 4,356 |


|  | 3,355 |  | 3,127 |
| :---: | :---: | :---: | :---: |
|  | 8,358 |  | 7,991 |
| \$ | 16,269 | \$ | 15,474 |

NOTE 4 - NET INCOME (LOSS) PER SHARE

During the quarter ended December 31, 1997, the Company adopted and retroactively applied the requirements of Statement of Financial Accounting Standards No. 128, "Earnings Per Share" ("SFAS No. 128") to all periods presented. SFAS No. 128 requires presentation of both Basic EPS and Diluted EPS on the face of the statement of operations. Basic EPS, which replaces primary EPS, is computed by dividing net income available to common stockholders (numerator) by the weighted average number of common shares outstanding
(denominator) during the period. Unlike the computation of primary EPS, Basic
EPS excludes the dilutive effect of stock options and warrants. Diluted EPS replaces fully diluted EPS and gives effect to all dilutive potential common shares outstanding during a period. In computing Diluted EPS, the average price for the period is used in determining the number of shares assumed to be purchased from exercise of stock options and warrants rather than the higher of the average or ending price as used in the computation of fully diluted EPS. Net income per share for all prior periods presented has been restated to conform to the provisions of SFAS 128.

The following table presents a reconciliation of the numerators and denominators of the Basic and Diluted EPS computations for the periods presented below:

|  | Three months ended |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { APRIL 3, } \\ 1998 \end{gathered}$ | $\begin{gathered} \text { MARCH } 28, ~ \\ 1997 \end{gathered}$ |  |
| IN THOUSANDS | (UNAUDITED) |  | (UNAUDITED) |  |
| Net income (loss) (numerator) | \$ | $(18,365)$ | \$ | 2,098 |
| Shares calculation (denominator) : | 11,475 |  | 10,210 |  |
| Average shares outstanding - basic |  |  |  |  |
| Effect of Dilutive Securities: |  |  |  |  |
| Potential Common Stock relating to stock options and warrants |  | -- |  | 1,358 |
| Average shares outstanding - diluted |  | 11,475 |  | 1,568 |
| Net income (loss) per share - basic | \$ | (1.60) | \$ | 0.21 |
| Net income (loss) per share - diluted | \$ | (1.60) | \$ | 0.18 |

Options and warrants to purchase 980,018 shares of Common Stock at prices
ranging from $\$ 0.30$ to $\$ 22.75$ per share were outstanding during the quarter ended April 3, 1998, but were not included in the computation of diluted EPS as a result of the loss incurred by the Company for the quarter ended April 3, 1998, since such potential common shares were antidilutive.

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NOTE 5 - COMPREHENSIVE INCOME

Effective January 1, 1998, the Company adopted Statement of Financial Accounting Standards No. 130, "Reporting Comprehensive Income" ("SFAS 130). SFAS No. 130 requires that all items recognized under accounting standards as components of comprehensive income be reported in an annual financial statement that is displayed with the same prominence as other annual financial statements. This Statement also requires that an entity classify items of other comprehensive income by their nature in an annual financial statement. For example, other comprehensive income may include foreign currency translation adjustments, minimum pension liability adjustments, and unrealized gains and losses on marketable securities classified as available-for-sale. Annual financial statements for prior periods will be reclassified, as required. The Company's total comprehensive income was as follows:

|  | THREE MONTHS ENDED |  |
| :---: | :---: | :---: |
|  | $\begin{gathered} \text { APRIL 3, } \\ 1998 \end{gathered}$ | $\begin{gathered} \text { MARCH } 28 \text {, } \\ 1997 \end{gathered}$ |
| IN THOUSANDS | (UNAUDITED) | (UNAUDITED) |
| Net income (loss) | \$ $(18,365)$ | \$ 2,098 |
| Other comprehensive loss | (20) | -- |
| Total comprehensive income (loss) | \$ $(18,385)$ | \$ 2,098 |

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ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

## OVERVIEW

Harmonic Lightwaves, Inc. ("Harmonic" or the "Company") designs, manufactures and markets digital and lightwave based communications systems that deliver video, audio and data over hybrid fiber/coax ("HFC"), satellite and wireless networks. The Company's advanced solutions enable cable television and other network operators to provide a range of broadcast and interactive broadband services that include high-speed Internet access and video-on-demand. The Company offers a broad range of fiber optic transmission and digital headend products for HFC networks, and through its acquisition of N.M. New Media Communication Ltd. ("NMC") in January 1998, expanded its product offerings to include high-speed data delivery software and hardware.

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including statements regarding future revenues, gross margins, and expense levels, future capital expenditures and future cash flows. Actual results could differ materially from those projected in the forward-looking statements as a result of a number of factors, including those set forth under "Factors That May Affect Future Results of Operations" below and elsewhere in this Form 10-Q.

RESULTS OF OPERATIONS
Net Sales
The Company's net sales decreased $15 \%$ from $\$ 19.0$ million in the first quarter of 1997 to $\$ 16.2$ million in the first quarter of 1998 . This decrease in net sales was attributable to lower shipments to international cable customers caused primarily by severe weather conditions in Canada and the uncertain financial situation in Asia. International sales were down $47 \%$ compared to the first quarter of 1997 and represented 43\% of net sales in the first quarter of 1998 compared to $70 \%$ of net sales in the first quarter of 1997 . The lower
international sales were partially offset by higher domestic sales, which increased by 58\% over the level achieved in the first quarter of 1997 , and a modest revenue contribution by NMC.

## Gross Profit

Gross profit decreased from $\$ 9.0$ million (47\% of net sales) in the first quarter of 1997 to $\$ 5.1$ million ( $31 \%$ of net sales) in the first quarter of 1998 . The decrease in gross profit was due to lower sales volume and corresponding lower factory absorption of fixed costs, less favorable geographic and product mix, and pricing pressure for certain products. In addition, in the first quarter of 1998, the Company increased its inventory reserves for certain existing products following the introduction of several new products. The Company expects gross margins for 1998 to be lower than 1997 gross margins due to new product introductions, continuing softness in certain international markets and pricing pressures in some markets.

Research and Development

Research and development expenses increased from $\$ 2.8$ million (15\% of net sales) in the first quarter of 1997 to $\$ 3.4$ million ( $21 \%$ of net sales) in the first quarter of 1998. The increase in spending was principally attributable to increased headcount, particularly at the Company's subsidiary in Caesarea, Israel which is developing Harmonic's TRANsend digital headend products, and to higher prototype expenses in connection with the PWRBlazer Scaleable Node, PWRLink II transmitter and TRANsend development programs. In addition, the inclusion of NMC's research and development expenses in the first quarter of 1998 contributed to the increase. The increase in research and development expenses as a percentage of net sales was also due to the lower sales level in the first quarter of 1998 compared to the first quarter of 1997. The Company anticipates that research and development expenses will continue to increase substantially in absolute dollars, although such expenses may vary as a percentage of net sales.

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Sales and Marketing
Sales and marketing expenses increased from $\$ 2.9$ million ( $15 \%$ of net sales) in the first quarter of 1997 to $\$ 4.1$ million ( $25 \%$ of net sales) in the first quarter of 1998. The increase in expenses was primarily due to higher headcount and costs associated with expansion of the direct sales force, technical support and marketing organizations, as well as higher promotional expenses. In addition, the inclusion of NMC's sales and marketing expenses in the first quarter of 1998 contributed to the increase. The increase in sales and marketing expenses as a percentage of net sales was also due to the lower sales level in the first quarter of 1998 compared to the first quarter of 1997. The Company anticipates that sales and marketing expenses will continue to increase substantially in absolute dollars, although such expenses may vary as a percentage of net sales.

General and Administrative
General and administrative expenses increased from $\$ 1.1$ million ( $6 \%$ of net sales) in the first quarter of 1997 to $\$ 2.1$ million ( $13 \%$ of net sales) in the first quarter of 1998. The increase in expenses was principally attributable to adjustments to accounts receivable reserve levels as a result of the financial situation in Asia, which has impacted certain of the Company's distributors, and the inclusion of NMC's expenses in the first quarter of 1998. The increase in general and administrative expenses as a percentage of net sales was also due to the lower sales level in the first quarter of 1998 compared to the first quarter of 1997. The Company expects to incur higher levels of general and administrative costs in the future, although such expenses may vary as a percentage of net sales.

Interest and Other Income

Interest and other income, consisting principally of interest income, was \$0.2 million in both the first quarter of 1997 and the first quarter of 1998.

Income Taxes
No provision for income, taxes was recorded for the first quarter of 1998 due to
the net loss for the quarter. A provision of $\$ 370 \mathrm{~K}$ was recorded for the first quarter of 1997 based on an estimated effective annual tax rate of $15 \%$.

## LIQUIDITY AND CAPITAL RESOURCES

Cash used in operations was approximately $\$ 0.9$ million and $\$ 0.4$ million for the first quarters of 1997 and 1998, respectively. The decrease in cash used in operations was primarily due to improved customer collections and lower inventory levels partially offset by a net loss in the first quarter of 1998 compared to net income in the comparable period of 1997.

Additions to property, plant and equipment were approximately $\$ 1.5$ million and $\$ 0.6$ million in the first quarters of 1997 and 1998 , respectively. The decrease in 1998 compared to 1997 was due principally to higher expenditures incurred in the first quarter of 1997 for leasehold improvements and furniture and fixtures for the Company's research and development facility in Caesarea, Israel. The Company expects to spend approximately $\$ 5.0$ million on capital expenditures in 1998, primarily for manufacturing and test equipment.

As of April 3, 1998, the Company's principal sources of liquidity included cash and cash equivalents of $\$ 12.5$ million and a bank line of credit which provides for up to $\$ 12.0$ million in borrowings and expires in December 1998. The line of credit bears interest at the bank's prime rate or LIBOR plus $2.0 \%$. The Company has guaranteed certain borrowing facilities of its subsidiaries totaling \$1.4 million via letters of credit issued under this credit facility. The Company also has a $\$ 3.0$ million term loan facility to be used for the purchase of capital equipment. This loan facility expires in December 1998 and bears interest at the bank's prime rate plus $0.5 \%$. Outstanding borrowings under credit facilities were $\$ 615,000$ as of April 3, 1998. The Company expects that it will be able to renew or replace the line of credit and equipement term loan upon their expiration on terms acceptable to the Company.

The Company believes that its existing liquidity sources and anticipated funds from operations will satisfy its cash requirements for at least the next twelve months.

## FACTORS THAT MAY AFFECT FUTURE RESULTS OF OPERATIONS

Potential Fluctuations in Future Operating Results
The Company's operating results have fluctuated and may continue to fluctuate in the future, on an annual and a quarterly basis, as a result of a number of factors, many of which are outside of the Company's control, including the level of capital spending in the cable television industry both in the U.S. and foreign markets, changes in the regulatory environment, changes in market demand, the timing of customer orders, competitive market conditions, lengthy sales cycles, new product introductions by the Company or its competitors, market acceptance of new or existing products, the cost and availability of components, the mix of the Company's customer base and sales channels, the mix of products sold, development of custom products, the level of international sales and general economic conditions. In addition, in each quarter of 1997 and the first quarter of 1998 , the Company recognized a substantial portion of its revenues in the last month of the quarter. The Company establishes its expenditure levels for product development and other operating expenses based on projected sales levels, and expenses are relatively fixed in the short term. Accordingly, variations in timing of sales can cause significant fluctuations in operating results. In addition, because a significant portion of the Company's business is derived from orders placed by a limited number of large customers, the timing of such orders can also cause significant fluctuations in the Company's operating results. If sales are below expectations in any given quarter, the adverse impact of the shortfall on the Company's operating results may be magnified by the Company's inability to adjust spending to compensate for the shortfall.

Dependence on Cable Television Industry Capital Spending
indirectly, from sales to cable television operators. Demand for the Company's products depends to a significant extent upon the magnitude and timing of capital spending by cable television operators for constructing, rebuilding or upgrading their systems. The capital spending patterns of cable television operators are dependent on a variety of factors, including access to financing, cable television operators' annual budget cycles, the status of federal, local and foreign government regulation of telecommunications and television broadcasting, overall demand for cable television services, competitive pressures (including the availability of alternative video delivery technologies

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such as satellite broadcasting), discretionary customer spending patterns and general economic conditions. In addition, cable television capital spending can be subject to the effects of seasonality, with fewer construction and upgrade projects typically occurring in winter months and otherwise being affected by inclement weather. The company's net sales in the second half of 1997 and the first quarter of 1998 were adversely affected by a slow-down in spending by cable television operators in the U.S. and in foreign markets. The factors contributing to this slow capital spending include consolidation and system exchanges by domestic cable customers, which generally has had the effect of delaying certain system upgrades, uncertainty related to development of industry standards for digital transmission, evaluation by many cable customers of alternative advanced services and system architectures and emphasis on marketing and customer service strategies by certain international customers rather than continued construction of networks. The company is unable to predict when cable television industry capital spending will increase.

Dependence on Key Customers and End Users
Historically, a substantial majority of the Company's sales have been to relatively few customers. Sales to the Company's ten largest customers in 1996, 1997 and the first quarter of 1998 accounted for approximately $72 \%$, $56 \%$ and $65 \%$, respectively, of its net sales. Due in part to the consolidation of ownership of domestic cable television systems, the Company expects that sales to relatively few customers will continue to account for a significant percentage of net sales for the foreseeable future. Harmonic has adopted a strategy to sell to major domestic customers through its own direct sales force and, as a result, domestic OEM and distributor revenues were a smaller percentage of net sales in 1997 and the first quarter of 1998 than they were in prior periods. Substantially all of the Company's sales are made on a purchase order basis, and none of the Company's customers has entered into a long-term agreement requiring it to purchase the company's products. The loss of, or any reduction in orders from, a significant customer would have a material adverse effect on the Company's business and operating results.

## Highly Competitive Industry

The market for cable television transmission equipment is extremely competitive and has been characterized by rapid technological change. Most of the Company's competitors are substantially larger and have greater financial, technical, marketing and other resources than the Company. Many of such large competitors are in a better position to withstand any significant reduction in capital spending by cable television operators. In addition, many of the Company's competitors have more long standing and established relationships with domestic and foreign cable television operators than does the Company. There can be no assurance that the Company will be able to compete successfully in the future or that competition will not have a material adverse effect on the Company's business and operating results.

Rapid Technological Change
The market for the Company's products is relatively new, making it difficult to accurately predict the market's future growth rate, size and technological direction. In view of the evolving nature of this market, there can be no assurance that cable television operators, telephone companies or other suppliers of broadband services will not decide to adopt alternative architectures or technologies that are incompatible with the Company's products,
which would have a material adverse effect on the Company's business and operating results.

The broadband communications markets are characterized by continuing technological advancement. To compete successfully, the Company must design, develop, manufacture and sell new products that provide increasingly higher levels of performance and reliability. As new markets for broadband communications equipment continue to develop, the company must successfully develop new products for these markets in order to remain competitive. For example, to compete successfully in the future, the Company believes that it must successfully develop and introduce products that will facilitate the processing and transmission of digital signals over optical networks. While the Company has announced and demonstrated initial products for digital applications, there can be no assurance that the Company will successfully complete development of, or successfully introduce, products for digital applications, or that such products will achieve commercial acceptance. In addition, in order to successfully develop and market its planned products for digital applications, the Company may be required to enter into technology development or licensing agreements with third parties. Although many companies are often willing to enter into such technology development or licensing agreements, there can be no assurance that such agreements will be negotiated on terms acceptable to the Company, or at all. The failure to enter into technology development or licensing agreements, when necessary, could limit the Company's ability to develop and market new products and could have a material adverse effect on the Company's business and operating results.

The failure of the Company to successfully develop and introduce new products that address the changing needs of the broadband communications market could have a material adverse effect on the Company's business and operating results. In addition, there can be no assurance that the successful introduction by the Company of new products will not have an adverse effect on the sales of the Company's existing products. For
instance, an emerging trend in the domestic market toward narrowcasting (targeted delivery of advanced services to small groups of subscribers) is causing changes in the network architectures of some cable operators. This may have the effect of changing the Company's product mix toward lower price transmitters, which could adversely affect the Company's gross margins.

Risks Associated with the Acquisition of NMC
The growth in the Company's business has placed, and is expected to continue to place, a significant strain on the Company's limited personnel, management and other resources. Through its acquisition of NMC in January 1998, the Company increased the scope of its product line to include broadband, high-speed data delivery software and hardware and increased the scope of its international operations in Israel. The acquisition of NMC involves numerous risks and challenges, including: difficulties in the assimilation of operations, research and development efforts, products, personnel and cultures of Harmonic Lightwaves and NMC; the potential adverse effects of the acquisition on relationships with customers, distributors, suppliers and other business partners of the two companies; the dependence on the evolution and growth of the market for wireless and satellite broadband services; regulatory developments; rapid technological change; the highly competitive nature of the telecommunications industry; the Company's ability to successfully develop, manufacture and gain market acceptance of the products of NMC; the ability to manage geographically remote units; the integration of NMC's management information systems with those of the Company; potential adverse short-term effects on the Company's operating results; the amortization of acquired intangible assets; the risk of entering emerging markets in which the Company has limited or no direct experience; and the potential loss of key employees of NMC. The Company's future operating results will be significantly affected by its ability to successfully integrate NMC, to implement operating, manufacturing and financial procedures and controls, to improve coordination among different operating functions, to strengthen management information and telecommunications systems and to continue to attract, train and motivate additional qualified personnel in all areas. There can be no assurance that the Company will be able to manage these activities and implement these additional systems and controls successfully, and any failure to do so could have a materially adverse effect upon the Company's operating results. The acquisition of NMC has resulted in significant additional working capital requirements.

While the Company believes that it currently has sufficient funds to finance its operations for at least the next twelve months, to the extent that such funds are insufficient to fund the Company's activities, including any potential acquisitions, the Company may need to raise additional funds through public or private equity or debt financing from other sources. The sale of additional equity or convertible debt may result in additional dilution to the Company's stockholders and such securities may have rights, preferences or privileges senior to those of the Common Stock. There can be no assurance that additional equity or debt financing will be available or that if available it can be obtained on terms favorable to the Company or its stockholders.

Sole or Limited Sources of Supply

Certain components and subassemblies necessary for the manufacture of the Company's products are obtained from a sole supplier or a limited group of suppliers. The reliance on sole or limited suppliers, particularly foreign suppliers, and the Company's increasing reliance on subcontractors involve several risks, including a potential inability to obtain an adequate supply of required components or subassemblies and reduced control over pricing, quality and timely delivery of components or subassemblies. Certain key elements of the Company's digital headend products are expected to be provided initially by a sole foreign supplier. The Company does not maintain long-term agreements with any of its suppliers or subcontractors. An inability to obtain adequate deliveries or any other circumstance that would require the Company to seek alternative sources of supply could affect the Company's ability to ship its products on a timely basis, which could damage relationships with current and prospective customers and could have a material adverse effect on the Company's business and operating results. The Company believes that investment in inventories will constitute a significant portion of its working capital in the future. As a result of such investment in inventories, the Company may be subject to an increasing risk of inventory obsolescence in the future, which would materially and adversely affect its business and operating results.

## Risks of International Operations

Sales to customers outside of the United States in 1996, 1997 and the first quarter of 1998 represented $57 \%$, $59 \%$ and $43 \%$ of net sales, respectively, and the Company expects that international sales will continue to represent a substantial portion of its net sales for the foreseeable future. International operations are subject to a number of risks, including changes in foreign government regulations and telecommunications standards, export license requirements, tariffs and taxes, other trade barriers, fluctuations in currency exchange rates, difficulty in collecting accounts receivable, difficulty in staffing and managing foreign operations and political and economic instability. While international sales are typically denominated in U.S. dollars, fluctuations in currency exchange rates could cause the Company's products to become relatively more expensive to customers in a particular country, leading to a reduction in sales or profitability in that country. Payment cycles for international customers are typically longer than those for customers in the United States. There can be no assurance that foreign markets will continue to develop or that the Company will receive additional orders to supply its products for use in foreign broadband systems. In recent months, certain Asian currencies have devalued significantly in relation to the U.S. dollar. The Company believes that recent financial developments in Asia were a major factor contributing to the Company's lower net sales in Asia in the first quarter of 1998 than in the first quarter of 1997. In addition, the uncertain financial situation in Asia has put financial pressure on some of the Company's distributors. In response, the Company increased its accounts receivable reserves in the first quarter of 1998 . The Company is continuing to evaluate the effect of recent financial developments in Asia, including efforts to stabilize economic conditions, on the Company's business. There can be no assurance that the Company's sales and payment cycles in Asia will not continue to be materially adversely affected by the uncertain financial climate.

## Risks of Information Systems

The Company has commenced, for all its information systems, a Year 2000 date conversion project to address all necessary changes to be Year 2000 compliant. The Company is expensing the costs of addressing the "Year 2000 issue" as incurred. The Company does not expect that Year 2000 issues from its own information systems will have a material adverse impact on its financial position or results of operations. However, the Company could be adversely affected by Year 2000 issues faced by major customers and suppliers and other organizations with which the Company interacts. The Company is in the process of determining the impact that third parties who are not Year 2000 compliant may
have on the operations of the Company.

PART II

ITEM 2. CHANGES IN SECURITIES

In January 1998, the Company acquired N.M. New Media Communication Ltd. ("NMC") in exchange for the issuance of $1,037,911$ shares of Common Stock of the Company, payment of $\$ 1,000$ in cash and the assumption of all outstanding NMC stock options. The issuances of securities of the Company were deemed exempt from registration under the Securities Act of 1933, as amended, in reliance on Section $4(2)$ of the Act as transactions by an issuer not involving any public offering. The recipients of the securities represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the share certificates issued in such transactions. All recipients had adequate access to information regarding the Company.

ITEM 6. EXHIBITS AND REPORTS ON FORM 8-K
A. Exhibits

| Exhibit \# | Description of Document |
| :---: | :--- |
| 27.1 | Financial Data Schedule |

B. Reports on Form 8-K

In a Report dated January 6, 1998, the Company reported the closing and the principal terms of the acquisition of N.M. New Media Communication Ltd. (NMC) which was consummated on January 5, 1998. The Company filed an amended Report dated March 23, 1998, which included financial statements, pro-forma financial information and certain exhibits in connection with the acquisition of NMC.

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## SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: May 18, 1998

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HARMONIC LIGHTWAVES, INC.
(Registrant)
By: /s/ Robin N. Dickson
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    Robin N. Dickson
    Chief Financial Officer
    (Principal Financial and Accounting Officer)
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HARMONIC LIGHTWAVES, INC.

Index to Exhibits

EXHIBIT NO.

-     - ----------
27.1

DESCRIPTION OF DOCUMENT

Financial Data Schedule
<ARTICLE> 5
<MULTIPLIER> 1,000


